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Instalily GTM Engineer Case Study

Overview

This project presents an AI-powered lead generation prototype tailored for **DuPont Tedlar's Graphics & Signage division**. It automates the end-to-end prospecting process from curated event/company input to personalized outreach generation, and presents results in an interactive Streamlit dashboard for lead tracking and engagement.

AI Agent Workflow

1. **Event Extraction**
   - Pulls a predefined list of **signage-related trade shows and expos**.
   - Hardcoded entries simulate future scraping capabilities.
   - Implemented in `extract_events.py`.
2. **Company Association**
   - Matches signage-relevant companies to events manually based on known attendance.
   - Future versions would pull this dynamically from exhibitor listings.
3. **Contact Discovery**
   - Hardcoded contact data for real professionals at signage/graphics firms.
   - Titles include VP of Product, Innovation Directors, R&D leads, etc.
   - Placeholder logic included for scaling via LinkedIn Sales Navigator or Clay.
   - Implemented in `find_contacts.py`.
4. **Email Inference**
   - System assumes **LinkedIn messaging** for now.
   - Placeholder logic exists for integrating email format discovery from public sources (e.g. Hunter.io, RocketReach).
   - Implemented in `infer_email.py`.
5. **Outreach Generation**
   - Uses **OpenAI GPT-4** to generate highly personalized outreach messages.
   - Adjusts tone/context based on event, title, and company rationale.
   - Implemented in `generate_outreach.py`.

Data Processing Pipeline

All data flows through a modular and traceable pipeline:

- `events_companies.csv` → curated signage expos and companies

- `contacts.csv` → contact-level data
- `contacts_with_emails.csv` → outreach mode set to LinkedIn
- `contacts_with_messages.csv` → OpenAI-generated outreach messages

Each step is saved to CSV and automated via `main.py`.

Streamlit Dashboard

Fully interactive and built for usability:

- **Filters**:
  - By Company, Name, Title, Outreach Sent/Not Sent, Follow-Up Status
- **Lead Actions**:
  - Mark as Sent
  - Copy message to clipboard
  - Generate/edit follow-ups
  - Snooze follow-ups
- **Analytics**:
  - Bar chart: Outreach Status
  - Table: Follow-Up Status
- **Activity Log**:
  - Collapsible timeline of user actions with timestamps
  - Automatically logs outreach events on load

Integration Planning (Future Work)

- **LinkedIn Sales Navigator API**
  - Automate contact discovery
  - Match titles, company data, and messaging context
- **Clay API or Similar Tools**
  - Programmatically enrich leads
  - Fill in roles, emails, and LinkedIn data
  - Scale outreach across many contacts

Implementation Results

- Built a functioning GTM prototype tailored to DuPont Tedlar's commercial graphics focus
- Realistic contacts and companies pulled from the signage ecosystem
- Personalized GPT-powered outreach based on event + rationale
- Dashboard enables visual tracking and action on leads
- Fully exportable and deployable with clear documentation